



# PREDICATION OF CAREER BY ANALYZING USER'S BROWSER HISTORY, PERSONALITY TRAITS AND ACADEMIC RECORDS (DREAM MANTRA)

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## ABSTRACT

Nowadays, choosing a right career is one of the most important aspects of the student's learning process, and it is difficult to choose the right career option when there are number of options available to choose from. Our students choose academics based on traditional process and very little to no data mining or analytics is used to suggest right academics that can otherwise dramatically improve student's performance. It is normal human tendency to choose a career only by considering the academic records without much analyzing the skills or interest of students. Therefore, the proposed system aims at predicting the interest of user. When it comes to prediction there has to be some information to perform mining on. And what could be better to collect information from the internet. Internet being widely popular among the student's community can be a great source to collect information about an individual's choice of interest. Therefore, the proposed system recommends using the browser history which will give an insight of what an individual is interested in. However, it is also observed that there is an impact of psychological parameters for choosing a right career option. Hence, the proposed system takes the psychological parameters into consideration as well. The psychometric test can be conducted on students and the students can be classified for choosing the right career option. Hence our Dream Mantra application is likely to recommend you that which career type will be best suited for you so you may take the right steps at the right time.

**KEYWORDS:** Web Mining, Career, Psychological parameter, academic performance.

## 1. INTRODUCTION:

The major issue in the Student community who are at the stage of Higher Secondary is the selection of their career. It is mainly due to lack of information in the area which they want to choose. Ignorance is the first issue they face that blocks them from continuing to the right destination. Finally, they choose some course and institution randomly after sacrificing their own dream. Because of this our country loses many different potential students in various areas.

The proposed system aims at developing an android application to help students who are seeking right career path. Students after completing their schooling are in great dilemma as to what could be the better career option of them, and end up choosing careers suggested by others. However, choosing a career is a critical as well as very important aspect in every individual's life. The proposed system takes into consideration three factors that plays a major role in every student's career, these are:

- His/Her Academic records
- His/Her Personality traits
- Students Browsing history.

Academic record no doubt forms the foundation in an individual's career, This examines existing students academic performance and identifies the parameters essential for prediction of career.

A study also found that personality traits also plays a major role in an individual's career. Depending on the basic five personalities suggested by the Big five personality model it can be determined how outgoing or reserved a person is.

A large number of studies show that the user's actual interest is closely related to the browsing behavior on the web page. Therefore, the proposed system recommends making use of web browser history to predict an individual's area of interest. User's in the visit of the page and the users interest is closely related, such as the care of financial users will often visit some financial class of the site, and like sport users will often visit some sport news site or sporting goods website. We can use the user's visit record to tap the users interest in a topic. So why not use this to determine student's area of interest so as to recommend them better career options.

When it comes to student's community what could be better than an android application. Therefore, the proposed system aims at solving the problem faced by almost every student and thus recommends the best suited career options.

## 2. LITERATURE SURVEY:

*User Behavior Analysis Based on User Interest by Web log mining 2017[1]* Xpi Luo, Jing Wang, Qiwei Shen, Jingyu Wang, Qi Qit present that large number for studies show that the users actual interest is closely related to the browsing behaviour on the web page. Through the user browsing behaviour analysis can

obtain the user interest information, and then build the user interest model, so that the search results closer to the users expectations. This paper mainly introduces the method of web log mining, which can discover the mode of web pages by digging web log records.

*Academic Performance Predictors 2015[3]* Cheng Lei, Kin Fun Li The proposed system shows that the ability to predict one's academic performance is a great asset for both the students and the institution administrators. For the students, they can adjust workload, career direction, etc. if they are aware of their capability. For the administrators and instructors, early warnings would facilitate intervention thus enabling a more successful academic environment. In addition, institutional resources can be utilized in an optimal way thus gaining operation efficiency. This work surveys existing literature in student academic performance prediction. Parameters used for predictions are examined. Useful predictors are identified.

*Supporting Software Developers with a Holistic Recommender System[4]* Luca Ponzanelli, Simone Scalabrino, Gabriele Bavota, Andrea Mocci. proposed system recommends Libra, a holistic recommender system. It makes the process of searching and navigating easier by maintain a meta data used by the user and the semantic relationship between them.

*Ranking Search Results Based on Combination of Interests. 2016[5]* Pengwei Guo, Bin Zhang, Yin Zhang paper first classified queries into several types based on the current keywords and the sources of user's interests, such as short-term interest in user clicks, and long-term interest in user's search history, search logs of the search system etc. Then based on the sources of interests, we established a model of combination of interests which based on the artificial neural network and was trained by related approaches and data sets. Depending on different query types, we combined these sources of user's interests that the most best reflecting the user's current search intention to enhance the user's search experience. Comparing with the existing model of single interest, the results of the experiments show that our model can obtain better ranking on the results.

## 3. APPROACH:

### 3.1 Academic Record:

Academic record is the primary consideration for opting for any career. Every individual at some point in their lives choose their career mostly just considering their academic performance. Getting good marks will offcourse boost one's resume but it isn't the only part that needs to be considered.

### 3.2. Personality:

Personality is another aspect we are considering. To know about users personality traits candidate has to solve some sort of questionnaires which are based on big five personality test. After that according to the candidate answers five personality traits like extroversion, agreeableness, conscientiousness, neuroticism, openness to experience will be displayed.

**3.3. Interest:**

In order to give a career that will give you personal satisfaction, you must spend some time thinking about what really interests you. Let's be smart enough in utilizing something which you already have. Research says a user's browsing pattern indicates what really interests him/her.

**3.4. Salesforce:**

Being a career recommendation app for students there is vast amount of data therefore to store such huge amount of career options and browsing pattern this system makes use of cloud based technology named Salesforce. As a CRM is shifting toward cloud computing and Salesforce.com is a leader in cloud computing. It offers a complete set of CRM cloud applications, a cloud platform, and a cloud infrastructure with more cost effective for a higher return on investment.

**3.5. Keyword Extraction Algorithm:**

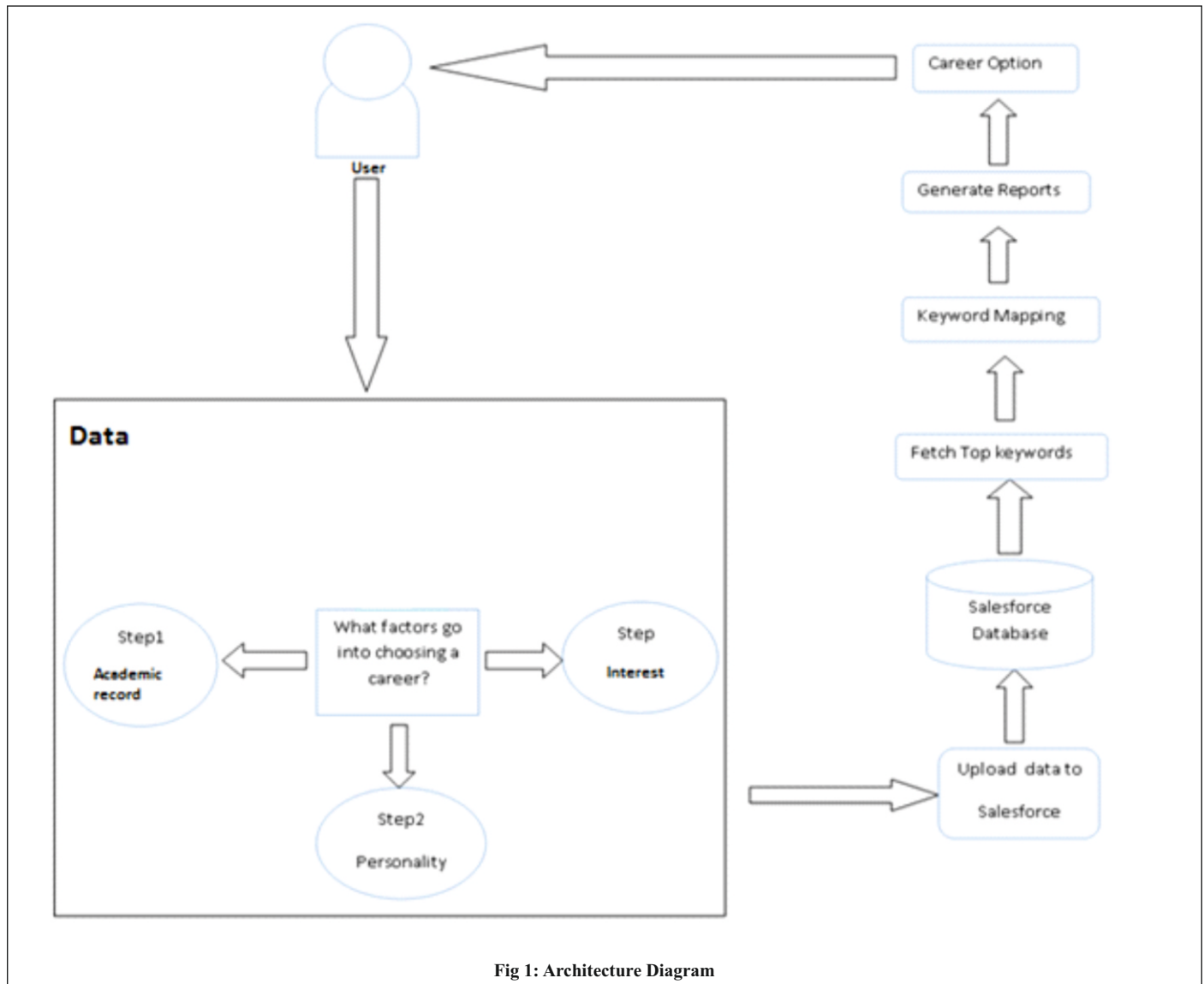
In this we proposed three stage keyword extraction:

- In stage one, we extract urls from candidate browsing history
- In second stage by applying TFIDF algorithm most frequently searched keywords are extracted.
- In last stage we removed meaningless words by comparing candidate keywords in terms of ranking results.

TF-IDF has been widely used in information retrieval and text mining. This algorithm used to evaluate how important a particular word is in a document. However, we want to know how important a word is within a whole document collection.

**3.6 Report Generation:**

The proposed system makes use of Salesforce which gives us the ability to generate reports. Reports are used to analyze relation between the user and the frequency of keywords that occurs the most in his/her history.



**Fig 1: Architecture Diagram**

**4. CONCLUSION:**

We are creating this application taking into consideration into web history to identify user's potential interest and also considering other parameters such as personality, academic record to aid the result of our system. Hence our Dream Mantra application is likely to recommend you about what type of career is best suited for you so that you may take the appropriate steps at the right time.

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